

RAW SEQUENCE LISTING

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Application Serial Number: 10/ SPO 1635
Source: IL 410
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RAW SEQUENCE LISTING

DATE: 04/13/2007

PATENT APPLICATION: US/10/580,635

TIME: 13:41:04

Input Set : N:\EFS\04_13_07\10580635_efs\500-1.txt

Output Set: N:\CRF4\04132007\J580635.raw

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3 <110> APPLICANT: Pastan, Ira H.
4     Ho, Mitchell
5     Bang, Sook-Hee
6     The Government of the United States
7     as represented by The Secretary of the
8     Department of Health and Human Services
10 <120> TITLE OF INVENTION: Mutated Anti-CD22 Antibodies and Immunoconjugates
12 <130> FILE REFERENCE: 015280-500100US
14 <140> CURRENT APPLICATION NUMBER: US 10/580,635
15 <141> CURRENT FILING DATE: 2006-05-25
17 <150> PRIOR APPLICATION NUMBER: US 60/525,371
18 <151> PRIOR FILING DATE: 2003-11-25
20 <150> PRIOR APPLICATION NUMBER: WO PCT/US04/39617
21 <151> PRIOR FILING DATE: 2004-11-24
23 <160> NUMBER OF SEQ ID NOS: 30
25 <170> SOFTWARE: PatentIn Ver. 2.1
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 321
29 <212> TYPE: DNA
30 <213> ORGANISM: Mus sp.
32 <220> FEATURE:
33 <223> OTHER INFORMATION: RFB4 mouse IgG1 anti-human CD22 monoclonal
34     antibody light chain variable region (VL)
36 <220> FEATURE:
37 <221> NAME/KEY: CDS
38 <222> LOCATION: (1)..(321)
39 <223> OTHER INFORMATION: RFB4 mouse IgG1 anti-human CD22 monoclonal
40     antibody light chain variable region (VL)
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44 Asp Ile Gln Met Thr Gln Thr Thr Ser Ser Leu Ser Ala Ser Leu Gly
45   1           5           10           15
47 gac aga gtc acc att agt tgc agg gca agt cag gac att agc aat tat   96
48 Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr
49           20           25           30
51 tta aac tgg tat cag cag aaa cca gat gga act gtt aaa ctc ctg atc  144
52 Leu Asn Trp Tyr Gln Gln Lys Pro Asp Gly Thr Val Lys Leu Leu Ile
53           35           40           45
55 tac tac aca tca ata tta cac tca gga gtc cca tca agg ttc agt ggc  192
56 Tyr Tyr Thr Ser Ile Leu His Ser Gly Val Pro Ser Arg Phe Ser Gly
57           50           55           60
59 agt ggg tct gga aca gat tat tct ctc acc att agc aac ctg gag caa  240
60 Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Ser Asn Leu Glu Gln

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61 65          70          75          80
63 gaa gat ttt gcc act tac ttt tgc caa cag ggt aat acg ctt ccg tgg 288
64 Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Gly Asn Thr Leu Pro Trp
65          85          90          95
67 acg ttc ggt gga ggc acc aag ctg gaa atc aaa 321
68 Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
69          100          105
72 <210> SEQ ID NO: 2
73 <211> LENGTH: 107
74 <212> TYPE: PRT
75 <213> ORGANISM: Mus sp.
77 <220> FEATURE:
78 <223> OTHER INFORMATION: RFB4 mouse IgG1 anti-human CD22 monoclonal
79 antibody light chain variable region (VL)
81 <400> SEQUENCE: 2
82 Asp Ile Gln Met Thr Gln Thr Thr Ser Ser Leu Ser Ala Ser Leu Gly
83 1 5 10 15
85 Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr
86 20 25 30
88 Leu Asn Trp Tyr Gln Gln Lys Pro Asp Gly Thr Val Lys Leu Leu Ile
89 35 40 45
91 Tyr Tyr Thr Ser Ile Leu His Ser Gly Val Pro Ser Arg Phe Ser Gly
92 50 55 60
94 Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Ser Asn Leu Glu Gln
95 65 70 75 80
97 Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Gly Asn Thr Leu Pro Trp
98 85 90 95
100 Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
101 100 105
104 <210> SEQ ID NO: 3
105 <211> LENGTH: 369
106 <212> TYPE: DNA
107 <213> ORGANISM: Mus sp.
109 <220> FEATURE:
110 <223> OTHER INFORMATION: RFB4 mouse IgG1 anti-human CD22 monoclonal
111 antibody heavy chain variable region (VH)
113 <220> FEATURE:
114 <221> NAME/KEY: CDS
115 <222> LOCATION: (1)..(369)
116 <223> OTHER INFORMATION: RFB4 mouse IgG1 anti-human CD22 monoclonal
117 antibody heavy chain variable region (VH)
119 <400> SEQUENCE: 3
120 gaa gtg cag ctg gtg gag tct ggg gga ggc tta gtg aag cct gga ggg 48
121 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
122 1 5 10 15
124 tcc ctg aaa ctc tcc tgt gca gcc tct gga ttc gct ttc agt atc tat 96
125 Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Ala Phe Ser Ile Tyr
126 20 25 30
128 gac atg tct tgg gtt cgc cag act ccg gag aag agg ctg gag tgg gtc 144

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129 Asp Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val
130      35                      40                      45
132 gca tac att agt agt ggt ggt ggt acc acc tac tat cca gac act gtg 192
133 Ala Tyr Ile Ser Ser Gly Gly Gly Thr Thr Tyr Tyr Pro Asp Thr Val
134      50                      55                      60
136 aag ggc cga ttc acc atc tcc aga gac aat gcc aag aac acc ctg tac 240
137 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
138      65                      70                      75                      80
140 ctg caa atg agc agt ctg aag tct gag gac aca gcc atg tat tac tgt 288
141 Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met Tyr Tyr Cys
142      85                      90                      95
144 gca aga cat agt ggc tac ggt agt agc tac ggg gtt ttg ttt gct tac 336
145 Ala Arg His Ser Gly Tyr Gly Ser Ser Tyr Gly Val Leu Phe Ala Tyr
146      100                     105                     110
148 tgg ggc caa ggg act ctg gtc act gtc tct gca 369
149 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala
150      115                     120
153 <210> SEQ ID NO: 4
154 <211> LENGTH: 123
155 <212> TYPE: PRT
156 <213> ORGANISM: Mus sp.
158 <220> FEATURE:
159 <223> OTHER INFORMATION: RFB4 mouse IgG1 anti-human CD22 monoclonal
160      antibody heavy chain variable region (VH)
162 <400> SEQUENCE: 4
163 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
164      1                      5                      10                      15
166 Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Ala Phe Ser Ile Tyr
167      20                      25                      30
169 Asp Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val
170      35                      40                      45
172 Ala Tyr Ile Ser Ser Gly Gly Gly Thr Thr Tyr Tyr Pro Asp Thr Val
173      50                      55                      60
175 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
176      65                      70                      75                      80
178 Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met Tyr Tyr Cys
179      85                      90                      95
181 Ala Arg His Ser Gly Tyr Gly Ser Ser Tyr Gly Val Leu Phe Ala Tyr
182      100                     105                     110
184 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala
185      115                     120
188 <210> SEQ ID NO: 5
189 <211> LENGTH: 4
190 <212> TYPE: PRT
191 <213> ORGANISM: Artificial Sequence
193 <220> FEATURE:
194 <223> OTHER INFORMATION: Description of Artificial Sequence:carboxyl
195      terminal fragment binding KDEL recycling receptor
196      for transport of construct into cytosol from

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197     endoplasmic reticulum
199 <400> SEQUENCE: 5
200 Lys Asp Glu Leu
201   1
204 <210> SEQ ID NO: 6
205 <211> LENGTH: 4
206 <212> TYPE: PRT
207 <213> ORGANISM: Artificial Sequence
209 <220> FEATURE:
210 <223> OTHER INFORMATION: Description of Artificial Sequence:carboxyl
211     terminal fragment binding KDEL recycling receptor
212     for transport of construct into cytosol from
213     endoplasmic reticulum
215 <400> SEQUENCE: 6
216 Arg Glu Asp Leu
217   1
220 <210> SEQ ID NO: 7
221 <211> LENGTH: 6
222 <212> TYPE: PRT
223 <213> ORGANISM: Artificial Sequence
225 <220> FEATURE:
226 <223> OTHER INFORMATION: Description of Artificial Sequence:RFB4 variable
227     light chain (VL) complementarity determining
228     region 1 (CDR1)
230 <400> SEQUENCE: 7
231 Gln Asp Ile His Gly Tyr
232   1           5
235 <210> SEQ ID NO: 8
236 <211> LENGTH: 6
237 <212> TYPE: PRT
238 <213> ORGANISM: Artificial Sequence
240 <220> FEATURE:
241 <223> OTHER INFORMATION: Description of Artificial Sequence:RFB4 variable
242     light chain (VL) complementarity determining
243     region 1 (CDR1)
245 <400> SEQUENCE: 8
246 Gln Asp Ile Gly Arg Tyr
247   1           5
250 <210> SEQ ID NO: 9
251 <211> LENGTH: 6
252 <212> TYPE: PRT
253 <213> ORGANISM: Artificial Sequence
255 <220> FEATURE:
256 <223> OTHER INFORMATION: Description of Artificial Sequence:RFB4 variable
257     light chain (VL) complementarity determining
258     region 1 (CDR1)
260 <400> SEQUENCE: 9
261 Gln Asp Ile Arg Gly Tyr
262   1           5

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Input Set : N:\EFS\04_13_07\10580635_efs\ -500-1.txt

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265 <210> SEQ ID NO: 10
266 <211> LENGTH: 6
267 <212> TYPE: PRT
268 <213> ORGANISM: Artificial Sequence
270 <220> FEATURE:
271 <223> OTHER INFORMATION: Description of Artificial Sequence:RFB4 variable
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273 region 1 (CDR1)
275 <400> SEQUENCE: 10
276 Gln Asp Ile Ala Arg Tyr
277 1 5
280 <210> SEQ ID NO: 11
281 <211> LENGTH: 3
282 <212> TYPE: PRT
283 <213> ORGANISM: Artificial Sequence
285 <220> FEATURE:
286 <223> OTHER INFORMATION: Description of Artificial Sequence:RFB4 variable
287 light chain (VL) complementarity determining
288 region 2 (CDR2)
290 <400> SEQUENCE: 11
291 Tyr Thr Ser
292 1
295 <210> SEQ ID NO: 12
296 <211> LENGTH: 9
297 <212> TYPE: PRT
298 <213> ORGANISM: Artificial Sequence
300 <220> FEATURE:
301 <223> OTHER INFORMATION: Description of Artificial Sequence:RFB4 variable
302 light chain (VL) complementarity determining
303 region 3 (CDR3)
305 <400> SEQUENCE: 12
306 Gln Gln Gly Asn Thr Leu Pro Trp Thr
307 1 5
310 <210> SEQ ID NO: 13
311 <211> LENGTH: 8
312 <212> TYPE: PRT
313 <213> ORGANISM: Artificial Sequence
315 <220> FEATURE:
316 <223> OTHER INFORMATION: Description of Artificial Sequence:RFB4 variable
317 heavy chain (VH) complementarity determining
318 region 1 (CDR1)
320 <400> SEQUENCE: 13
321 Gly Phe Ala Phe Ser Ile Tyr Asp
322 1 5
325 <210> SEQ ID NO: 14
326 <211> LENGTH: 8
327 <212> TYPE: PRT
328 <213> ORGANISM: Artificial Sequence
330 <220> FEATURE:

VERIFICATION SUMMARY

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